

Date: Fri, 19 Mar 93 15:12:31 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #347
To: Info-Hams

Info-Hams Digest Fri, 19 Mar 93 Volume 93 : Issue 347

Today's Topics:

(none)
A question about interference
correction to Macintosh Amateur Radio Software March 1993 lis
Crystal Oscillator Info?
Good amateur radio log
Heath/Standard HW4P UHF HT Mod Wanted
HRO query
License delays (another data point)
Linears wanted?
Matching antennas to low cost receivers?
Motorola HTs (3 msgs)
No code / morse code / My head hurts / (was: Re: Motorola HTs)
Yaesu FT-530 vs. TH-28A (2 msgs)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 19 Mar 93 19:54:39 GMT
From: news-mail-gateway@ucsd.edu
Subject: (none)
To: info-hams@ucsd.edu

Subject: 75 Ohm Hardline, How to Use?

Gary Coffman writes:

>In article <199303172234.AA29437@tilde.csc.ti.com> dube@cpdvax.CSc.ti.COM writes:
>>A1, N1AL says:

```
>>>.....(3/4 wave is an odd multiple of 1/4 wave.)
>>
>>Huh?    3/4 wave is an odd multiple, as is 1/4, etc.  But since 3/4 is a
>>half-wave multiple of 1/4, then it's an even multiple of 1/4 wave.
>
>Huh?
>
>Wavelength    Multiplier    Order
>1/4           1             fundamental
>2/4           2             even
>3/4           3             odd
>
>Gary
```

Must be the new Clinton math. Let me try again:

```
1)  FUNDAMENTAL    (EVEN)
    1/4 WAVE       ODD
    1/2 WAVE       EVEN
    3/4 WAVE       ODD
```

2) When referenced to 1/4 wave as in Al's post:

```
1/4 WAVE          BASIC UNIT OF REFERENCE (NOT THE FUNDAMENTAL)
1/2 WAVE    1/2 - 1/4 = 1/4          ODD
3/4 WAVE    3/4 - 1/4 = 1/2          EVEN
```

Since 3/4-wave is 1/2-wavelength away from 1/4 wave...

Am I missing something?

```
73,
Dube          AB5AP          <dube@cpdvax.csc.ti.com>
```

```
-----
Date: Fri, 19 Mar 1993 15:33:59 GMT
From: news.acns.nwu.edu!casbah.acns.nwu.edu!lapin@network.UCSD.EDU
Subject: A question about interference
To: info-hams@ucsd.edu
```

In article <1993Mar18.222430.5310@wvnmvs.wvnet.edu> un027713@wvnmvs.wvnet.edu writes:

```
>I have a question on the topic of interference to home entertainment
>equipment and I'm hoping that the net.wisdom can come to my aid.
>
>I know that I must prevent harmonics from my rigs from causing interference
>to others.  But, I found out that the carrier for CABLE channel 18 is in the
```

>2-meter band (it comes in on my HXT-202). I'm guessing that if I transmit
>on this frequency (I can't test this yet, I'm still waiting for my ticket) I
>may cause interference to my TV on that channel.
>
>My question is...who is legally responsible for cleaning up the interference?
>I know that as a responsible ham, I should work with my neighbors to help clear
>clear up any problems even if it's not my responsibility. But since I would be
>operating within the 2-meter band, would the cable co. be responsible for
>preventing my signal from entering their system?
>
>Any opinions?
>
>Jack (5 weeks and waiting)

Since you are talking about cable, you simplify the answer. Cable companies are able to use frequencies that are assigned to other services because their signals are supposed to stay in the cable and not go into the air. Likewise, keeping the signals that are in the air on their authorized frequencies out of the cable system is solely the responsibility of the cable companies. If the signal gets into the TV set, it is the responsibility of the TV manufacturer.

This answer does not address the questions of spurious transmissions. That's for another posting.

Welcome to ham radio.

73, Greg Lapin KD9AZ
glapin@nwu.edu

Date: 19 Mar 93 17:09:45 GMT
From: news-mail-gateway@ucsd.edu
Subject: correction to Macintosh Amateur Radio Software March 1993 lis
To: info-hams@ucsd.edu

OK... fellow Mac users... I blew a line or two in the March 1993 release of Mac Amateur Radio software list. Please cut the below and paste the appropriate lines into the the list.

> left out the name of the application! <

--Packet and other digital modes--
NET/Mac

Allows simultaneous TCP/IP, AX.25, and NET/ROM connections. Requires a TNC with KISS mode. Copyright, but free for noncommercial use.

Available via anonymous FTP from ftp.apple.com (/pub/ham-radio); and on the Digikron Systems, WB3FFV, and N8EMR dialup BBSs. Or send a formatted 800K Macintosh disk with stamped, self-addressed disk mailer to Doug Thom, N60YU, 1405 Graywood Drive, San Jose, CA 95129.

Adam van Gaalen, PA2AGA, (Internet: adam@IGG.TNO.NL) has been making modifications to NET/Mac. His version is available via anonymous FTP from ucsd.edu (/hamradio/packet/tcpip/pa2aga).

> spelled Patty's name wrong twice and add a "disclaimer" <

NOTE: Much of this work was done by Patty-N6BIS as she collected information from many vendors. I would like to keep this list as up to date as possible. Please feel free to drop me a note if you have any additional software to this list.

DISCLAIMER: The software listed here is not endorsed by Apple Computer, Inc.(c) nor has it been tested by the authors of this list.

```
*****
* Recompiled by Terry Stader - KA8SCP (tstader@aol.com)      *
* Original list compiled by Patty Winter - N6BIS             *
* New information last added 3/93                             *
* some information not rechecked since early 1991.           *
*****
```

73 for now.... c u on the shortwaves
Terry Stader - KA8SCP
America Online Ham Radio Club Host
Internet: tstader@aol.com (files <28K) or
 tstader@attmail.com (files >28K)
KA8SCP@WA1PHY.#EMA.MA.USA.NOAM
ka8scp@ka8scp.ampr.org [44.56.4.82] Mac
ka8scp-1@ka8scp-1.ampr.org [44.56.4.120] DOS Clone
(they're BOTH pc's!)

Date: 19 Mar 93 15:22:32 GMT
From: usc!cs.utexas.edu!sun-barr!olivea!mintaka.lcs.mit.edu!micro-heart-of-gold.mit.edu!news.media.mit.edu!news.media.mit.edu!monta@network.UCSD.EDU
Subject: Crystal Oscillator Info?
To: info-hams@ucsd.edu

mcovingt@aisun3.ai.uga.edu (Michael Covington) writes:

> gw214790@longs.LANCE.ColoState.Edu (Galen Watts) writes:

>

> > I'm trying to build a crystal oscillator using cheap microprocessor

> > crystals. I can get a crystal that is half the frequency I want, but
> > I can't find any books that have doubling oscillators in them. Anybody
> > out there know of such books?
>
> Tripling is easier than doubling. What frequency are you going for?
> What kind of output? Presumably logic-level...?
> Tell us more.

Doubling is pretty easy too; there's the trick of XORing the half-frequency clock with a replica delayed by a few gate delays (say four inverters in series). This generates a short pulse on each edge. If precise duty cycle isn't a problem, you're there.

Alternatively, assuming a reasonable sine wave from your source, you could double with a passive diode network (e.g., full-wave rectifier), filter out everything but the doubled energy, and square up with another gate. This will give a nice clean 50% duty cycle doubled clock, at the cost of messing around with a few filters.

Peter Monta monta@image.mit.edu
MIT Advanced Television Research Program

Date: Fri, 19 Mar 1993 16:02:10 GMT
From: saimiri.primite.wisc.edu!zaphod.mps.ohio-state.edu!uwm.edu!linac!att!att-out!cbnewsh!afy@ames.arpa
Subject: Good amateur radio log
To: info-hams@ucsd.edu

Date: 19 Mar 93 16:00:49 GMT
From: ogicse!uwm.edu!wupost!trinews.sbc.com!mac-gianino.tri.sbc.com!gianino@network.UCSD.EDU
Subject: Heath/Standard HW4P UHF HT Mod Wanted
To: info-hams@ucsd.edu

I'm looking for the out-of-band mod (Tx/Rx) for the Heath HW4P UHF handheld radio. I can't get into the mod files at Garfield and the Standard people aren't talking.
Ken - WB0QNA

Date: 19 Mar 93 16:25:27 GMT

From: mcsun!marble.uknet.ac.uk!uknet!bcc.ac.uk!news@uunet.uu.net
Subject: HRO query
To: info-hams@ucsd.edu

I have acquired an HRO reciever, but no PSU. There is a 4-pin plug on it which I assume is HT/Ground/Filament. Before I disturb the tubes and circuitry, can someone tell me the voltages for the HT and filament? (I dont have a schematic or operating manual - we're talking WW2 bomber kit here :-))

many thanks. 73

Date: 19 MAR 93 09:55:48
From: pa.dec.com!engage.pko.dec.com!nntpd.lkg.dec.com!ryn.mro4.dec.com!
est.enet.dec.com!randolph@decwrl.dec.com
Subject: License delays (another data point)
To: info-hams@ucsd.edu

In article <930314.233143.1J5.rusnews.w165w@garlic.sbs.com>, system@garlic.sbs.com
(Anthony S. Pelliccio) writes...
>Out here in 1-Land we're running at about an 8 week period. So I should
>have my Advanced call in a week or so. Ahhhh....
>
>Tony

Yup, just got my tech+ a week ago today. 2 days short of 8 weeks.

73 de N100Q (yup, it's a bit of a tongue-twister)
-Tom R. randolph@est.enet.dec.com

Date: 19 Mar 93 19:24:00 GMT
From: galaxy!proton!root@network.UCSD.EDU
Subject: Linears wanted?
To: info-hams@ucsd.edu

In article <1993Mar18.093743.6311@train.ufh.ac.za>
inus@aloe.ufh.ac.za (& Scheepers) writes:

> I'm looking for some linear amplifiers for 27 - 29 MHz.
> The bigger the better. Up to 100W if possible...

Let me guess...suitable for 5 Watts input, right?

Barrie, K0WWG

Date: Fri, 19 Mar 1993 16:53:29 GMT
From: news.acns.nwu.edu!casbah.acns.nwu.edu!rdewan@network.UCSD.EDU
Subject: Matching antennas to low cost receivers?
To: info-hams@ucsd.edu

In article <1238@arrl.org> zlau@arrl.org (Zack Lau) writes:

>
>The reason why receiver matching isn't important in many cases is that
>noise masks any possible improvement. My favorite analogy is the
>hearing aid at the rock (heavy metal?) concert. You have to be
>awfully deaf need them in such a noisy place. For some people,
>earplugs (attenuators) would help :-).

My experience, limited as it may be when compared to your's Zack, is different. I often use a manual antenna tuner on the HF bands. Before I transmit, even at low power, I always peak the receiver noise first. It, invariably, is close to matched when I check it using the transmitter. Following this experience, I cannot but help believe that matching is important for receivers too. After all, it peaks the signals too. On most bands the difference in received signals between a well matched antenna and mis-matched antenna is big and unmistakable.

>
>Actually, many "high performance" HF receivers have high input
>SWRs. There are techniques for getting a low noise receiver and good

How about time tested and trusted tuned front ends? Something that was common earlier before digital synthesized tuning. This was when you had to turn more than an optical switch. Some receivers like the Grundig Satelllite 650 (I think) has motor actuated front end caps. Others like the Kenwood TS850 have cpu-selected front end filters. The TS850 has 11 (or 13) tuned front ends with a Q of 5 to 15 (my guess based on bandwidth). The filters for the ham bands have a higher Q than those for general coverage portions.

>SWR at HF, but these are patented. More importantly, they usually don't
>offer enough of an improvement to be worth paying someone to use them.

Many companies, like Grove Enterprises, offer pre-selectors for general coverage receivers.

Rajiv
aa9ch
Address: r-dewan@nwu.edu

Phone: None. Only CW.

Date: Fri, 19 Mar 1993 16:24:03 GMT
From: news.acns.nwu.edu!casbah.acns.nwu.edu!rdewan@network.UCSD.EDU
Subject: Motorola HTs
To: info-hams@ucsd.edu

In article <1993Mar18.210847.29778@sj.ate.slb.com> jones@sj.ate.slb.com (Clark Jones) writes:

>Anthony S. Pelliccio (system@garlic.sbs.com) wrote:

>:
>: 73 de n1mpq/aa - - .- --- -. - .- --- -... . -... .. -.-. . -
>: .- - .-- -... .. --. -- - .- -.-. . -.-.-
>:
> .. -.. --- -. --- - .- --. -. . . -.-.-- .. -
> .- - .- . . .- .- --- .- --. .- -.-. -.-. .- .-
> and more.... deleted for brevity

It is amazing how difficult this is to decipher. I had to sound out each letter. I gave up after a couple of lines...

Rajiv
aa9ch
Address: r-dewan@nwu.edu
Phone: None. Only CW. At 40wpm and working to increase it.

Date: 19 Mar 93 17:55:27 GMT
From: news-mail-gateway@ucsd.edu
Subject: Motorola HTs
To: info-hams@ucsd.edu

>for those of you that didn't buy a program when you entered the arena..<

: 73 de n1mpq/aa - - .- --- -. - .- --- -... . -... .. -.-. . -
the no code license
:
: .- - .-- -... .. --. -- - .- -.-. . -.-.-
was a big mistake.
:
.. -.. --- -. --- - .- --. -. . . -.-.-- .. -
i do not agree. if it
. - .- . . .- .- --- .- --. .- -.-. -.-. .- .-
were aroud 23 years
. - --. --- --.-.- .. .- --. .- .- .- .- .- .- .- .- .

ago, i would be
eligible for qcwa
today. i never had
an opportunity to
learn morse code
until just before
the noce lisene came
out.

>well, there you have it. a few uncorrected errors but at least it's not that
stuff Pizza Hut was putting on their placemats a few years ago that was a
combination of International and Continental code. and the statement wasn't
made that "keeping the repeater CW ID speed slow will help encourage people to
learn Morse Code". (esp. when it sends "w4nlx/r cocoa beach, fla." at 13 WPM)<

bill wb9ivr

Date: 19 Mar 1993 17:08:52 GMT
From: topaz.bds.com!topaz.bds.com!ron@uunet.uu.net
Subject: Motorola HTs
To: info-hams@ucsd.edu

? - - - - - - - - -
- ? - - - - - - - - - - - - - - .

[illegible]

• • • — — — — — — — • • — — — — — — — • — • — • — — — — — — — — — — — — • • • — • —

Date: Fri, 19 Mar 1993 12:06:46 GMT
From: usc!howland.reston.ans.net!newsserver.jvnc.net!darwin.sura.net!
mlb.semi.harris.com!SU19F!jhobson@network.UCSD.EDU
Subject: No code / morse code / My head hurts / (was: Re: Motorola HTs)
To: info-hams@ucsd.edu

In article <1993Mar18.210847.297778@sj.ate.slb.com> jones@sj.ate.slb.com (Clark Jones) writes:

```
>:
>: 73 de n1mpq/aa  - .... . -. --- -. . - . . . . . . . . . .
>:                  .-- .- ... .- -... .. -- .- .. . - - - -
>:
>:
>  ..  -. ---  -. --- -  .-- . . . . . . . . . . . . . . . .
>  .-- . . . .  .- . . ---  .- .- . . . . . . . . . . . . . .
>  .- --- - - .--  ..  .- ---  . . . . . . . . . . . . . .
>  . . . . . . . . . . . . . . . . . . . . . . . . . . . .
>  - --- - . . . - - . . . . . . . . . . . . . . . . . . .
>  .- .-  --- .-- . .-- ---  .- - . . . . . . . . . . . .
>  . . . . . . . . . . . . . . . . . . . . . . . . . . . .
>  .- - - . . . . . . . . . . . . . . . . . . . . . . .
>  - . . . . . . . . . . . . . . . . . . . . . . . . . .
>  --- . . . . . . . . . . . . . . . . . . . . . . . .
```

Have a nice day.

Harv
WB4NPL

shz@garage.att.com (Seth Zirin, N2UCQ) writes:

```
> I'm looking for a dual-band HT and have narrowed the choices to either
> a Yaesu FT-530 or a Kenwood TH-28A. The FT-530 and accessories are cheaper.
>
> Both have illuminated keypads. Keypad numbers will be difficult to see
> at night on the TH-28A because the keys are printed with letters and the
> numbers are next to the illuminated keys. The FT-530 is not alphanumeric
> and has the numbers on the faces of the keys.
>
> The FT-530 offers more choices of midrange output power (5w, 2.5, 1w, 500mw)
> than the TH-28A (5w, 500mw, 20mw or 2.5w, 500mw, 20mw).
>
> Several net-folk have recently mentioned the TH-28A but I've seen no comments
> on the FT-530. Has anyone seen or used one?
```

Well, I've had the opportunity to use a TH-78A and they're nice radios. The only advantage they have over the FT-530 that I know of is the alphanumeric labels you can assign to everything. Other than that, who knows.

Tony

```
-----
-- Anthony S. Pelliccio, n1mpq/aa      // A man who feels sees life as //
-- system @ garlic.sbs.com             // a tragedy, a man who thinks  //
-----// sees life as a comedy. (This //
-- Flame Retardent Sysadmin           // was in my fortune cookie!)  //
-----
-- This is a calm .sig! --
-----
```

```
-----
Date: 19 Mar 93 18:02:18 GMT
From: ogicse!uwm.edu!zaphod.mps.ohio-state.edu!sdd.hp.com!col.hp.com!fc.hp.com!
paulc@network.UCSD.EDU
Subject: Yaesu FT-530 vs. TH-28A
To: info-hams@ucsd.edu
```

Ron says:

> Actually, for intermod problems the FT470 is WORSE than most other dual
> banders.

>

Daniel says:

> I own an FT-470 and I find it very sensitive to intermods...

>

But, Andy's FT-470 seems to work ok. The FT-470 I borrowed for a while seemed to have some troubles also, but another friend's doesn't. Hmmmm. I heard there was a mod that Yaesu would do (for a price) that "fixed" the problems. Maybe this explains the differences? Or, maybe it's just where you live and what pagers, etc., are near you.

John Schubert (johns@hp-ptp.ptp.hp.com) wrote:

> ...The most outrageous feature I've come accross so far is
> the battery saver mode the functions under TX!...

I'm not sure this is very useful, but I haven't tried it. There's a repeater here that can "peg" my S-meter with virtually full quieting, but that I can barely hit with full power and a Hot Rod. Wouldn't do to have my output power reduced automatically.

> ...The only
> thing I really miss is the extended UHF receive I had on the 470. Hopefully
> someone will discover how to do it from the key-pad...
>

I assume you know about "the mod". But, it's hardware and covers both
transmit and receive. It would be nice to be able to keyboard reduce
the transmit and/or receive limits from the extended mod range.

-Paul Christofanelli KG0CZ

Date: (null)
From: (null)

Date: 19 Mar 1993 16:58:06 GMT
From: topaz.bds.com!topaz.bds.com!ron@uunet.uu.net
To: info-hams@ucsd.edu

References <C428vK.LMx@hpuerca.atl.hp.com>, <1o8mn9INNghi@topaz.bds.com>,
<C43ypz.1AI@hpuerca.atl.hp.com>
Subject : Re: Motorola Radios Are/Were Tough

>>I went from Prog Lines to Micors.
> I hate to sound like an OF, but for their day Prog lines were good radios.
> Much better than the Moto T power equivalent.

I had a prog line, but when I dumped my 68 Ford LTD for an 80 Datsun,
I couldn't bring myself to install a rig in it that drew 6 Amps on
receive. I figured the engine would probably stop if I transmitted.
My Prog was 4 channel one, quite nice with T power.

I've never heard the name Motrac used around our area around the prefix
Scummy.

-Ron

Date: 19 Mar 93 16:47:31 GMT
From: usc!sdd.hp.com!spool.mu.edu!olivea!sgigate!odin!chuck.dallas.sgi.com!
adams@network.UCSD.EDU
To: info-hams@ucsd.edu

References <C3zvKx.4yB@ux1.cso.uiuc.edu>, <C40ECM.8JE@icon.rose.hp.com>,
<1993Mar18.184425.9527@ve6mgs.ampr.org>
Subject : Re: Newbie question: What is iambic?

In article <1993Mar18.184425.9527@ve6mgs.ampr.org>, mark@ve6mgs.ampr.org (Mark G. Salyzyn) writes:

|> greg@core.rose.hp.com (Greg Dolkas) writes:

|> I prefer the latter, but I am in the minority (I can send fluidly at 45WPM,
|> so I am the 'correct' minority :-)

this places you in top 2%. good job and congratulations. also tells me
how many hours you have been doing CW. :-)

|>
|> I'd like to share a tuning hint I got from an old CW Elmer (VE6XG, sends and
|> receives at 70WPM) on how to tune the old style Mechanical VibroPlex Keyer:
|> place a ohm meter, the kind with a movement, across the connections. Hit
|> Dit and adjust the clearance until the meter is at mid scale while the dits
|> are sending.

i did the same thing 30 years ago, but forgot all about it until you
mentioned it. now my mind brings up a question. is this really 50%
duty cycle? the dynamics and characteristics of meter movements and
associated electronics (linearity, etc.) effect this. anyone done this
and checked xmtr output with scope to look at duty cycle? inquiring minds
wanna know.

73 de chuck k5fo dit dit

End of Info-Hams Digest V93 #347
